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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/670,694

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EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT

PAPER NUMBER

2629

DATE MAILED: 04/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,694

Applicant(s)

NISHIMORI ET AL.

Examiner

Kimnhung Nguyen

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date 3/12/04.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

This application has been examined. The claims 1-11 are pending. The examination results are as following.

Claim Objections

1. Claim 9 is objected to because of the following informalities: "Claim 9. The input device of claim 10", which does not depend on the previous claim. Appropriate correction is required.

For the purpose of this Office Action, the examiner assumes that "Claim 9. The input device of claim 1".

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 9-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyata et al. (US 20030101178).

As to claim 1, Miyata et al. discloses in figs 29, 30a, 30b, an input device comprising:
one or more buttons (1-9 of key image 120a) on each of which an image is appearing
(see Family, Animals, Hometown...);

a button-pressing detecting unit (judgment unit 121) operable to detect button-pressing operation; and

a button-image changing unit (see key image 120a is pressed to change the image of content of 120a to 120b) operable to change an image appearing on at least one of the buttons when the button-pressing detecting unit detects the button-pressing operation (because key image 120a is pressed and changed to key image 120b, see 0195, 0197).

As to claim 2, Miyata et al. discloses further, wherein the button-mage changing unit (button or key image 120a is pressed) changes an image appearing on a button that has been pressed via the button-pressing operation (121) detected by the button-pressing detecting unit.

As to claim 3, Miyata et al. discloses further, wherein the button-image changing unit (120a) changes an image appearing on a button other than a button that has been pressed via the button-pressing operation detected by the button-pressing detecting unit (121, because button-pressing detecting unit 121 only determines the button or image was touch and does not change the image, and the button or key image 120a makes to change the image when we were touched, see 0194-0195 and 0197).

As to claim 9, Miyata et al. discloses further comprising:
a change-information obtaining unit (see data memory 122, fig. 29) operable to obtain information to be used for changing the correspondence; and a correspondence using the information obtained by the change-information obtaining unit (see 0195).

As to claim 10, Miyata et al. discloses further in fig. 2, wherein

Art Unit: 2629

the image appearing on each button includes an image of character (see Professor, fig.30b).

As to claim 11, Miyata et al. discloses in fig. 29, 30a, 30b, a computer program that enables an input device (button or key image 120a) to execute an image switching process of switching images appearing on buttons of the input device, the image switching process comprising:

a button-pressing detecting step of detecting pressing of a button (see judgment button 121); and

a button-image changing step of changing an image that is appearing on a button (see key image 120a fig. 30a is pressed to change the image 120b in fig. 30b).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyata et al. (US 2003/0101178) in view of Selig et al. (US 6,492,978).

As to claim 4, Miyata et al. discloses further an inherent more display panels that are placed behind the more buttons (because Miyata et al. discloses individual button or image key

Art Unit: 2629

120a corresponding to a key layout on the screen of a data apparatus are displayed, and by selecting a button or key image, a level image that corresponds to the selected button or image is display, see 0198, 0200), and the button-image changing unit (button or key image 120a) changes an image displayed on the more display panels, to change the image appearing on the at least one of the buttons as discussed above.

Miyata et al. does not disclose that wherein each button is at least partially made from a transparent material.

However, Selig et al. discloses the keyscreen system in figs 2-4, wherein each button (24) is made from transparent material (see Selig et al., col. 6, lines 41-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement each button (24) is made from transparent material as taught by Selig et al. into the system input device having the image is appearing on each button of Miyata et al. for producing the claimed invention because this would provide a configuration like a typical mechanical key which is readily visible and accessible by the user, and multiple visible targets for the user to depress (see Selig et al., col. 5, lines 65-67, col. 6, lines 1-3), and transmit the light therethrough and used for viewing the virtual keypad displayed on the monitor behind the touchscreen (see Selig et al., col. 6, lines 41-48).

As to claim 5, is similar claim 4 and discussed above.

As to claim 6, is similar claim 5. Miyata et al. discloses further an inherent more display panels that are placed behind the more buttons (because Miyata et al. discloses individual button

Art Unit: 2629

or image key 120a corresponding to a key layout on the screen of a data apparatus are displayed, and by selecting a button or key image, a level image that corresponds to the selected button or image is display, see 0198, 0200).

However, Miyata et al. does not disclose a transparent touch panel that is placed on the one display panel so as to be positioned between the one display panel and the one button, and an elastic member that is placed between the transparent touch panel and the one button to space the touch panel and one button, and the button-pressing operation by the touch panel by deformation of the elastic member.

Selig et al. discloses further in figs 2-4, comprising an inherent transparent touch panel that is placed on the one display panel (because the each button 24 is bonded with display panel to visible the image appearing, and button 24 is made from transparent material) so to be positioned between the one display panel and the one button (24, because each button 24 is made from transparent material, and provided with printed indicia thereon such as alphanumeric characters, and readily visible and accessible by the user(see Selig et al., col. 5, lines 65-67, col. 6, line 1, and col. 6, lines 41-46), and thus the touch panel detecting a pressure generated by deformation of the elastic member (see col. 6, lines 5-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the transparent touch panel that is placed on the one display panel so to be positioned between the one display panel and the one button and thus the touch panel detecting a pressure generated by deformation of the elastic member as taught by Selig et al. into the system input device having the image is appearing on each button of Miyata et al. for producing the claimed invention because this would provide a configuration like a typical

Art Unit: 2629

mechanical key which is readily visible and accessible by the user, and multiple visible targets for the user to depress (see Selig et al., col. 5, lines 65-67, col. 6, lines 1-3), and provide an enhanced elasticity which allows it to be deformed during depression for actuating the touchscreen, and then returning to its original shape when the applied force is removed (see Selig et al., col. 6, lines 5-10). Claim 6 is depend on claim 4, and is rejected on the reasons set forth in claim 4.

As to claim 7, Miyata et al. discloses further, wherein the one display panel is placed, in one-to-one correspondence, behind the one button, and the corresponding display panel and button (because the individual button 120a are bonded together to see the image appearing in the button 120a, such as Seasons, Office, Animals...) are bonded together (because each button or image key 120a corresponding to a key layout on the screen of a data apparatus are displayed, and by selecting a button or key image, a level image that corresponds to the selected button or key image is displayed, see Miyata et al., see 0200). Claim 7 is depend on claim 4, and is rejected on the reasons set forth in claim 4.

As to claim 8, Miyata et al. discloses input device of claim 4, in figs. 29, 30a-30b, wherein

the button-image changing unit (120a) includes:

a correspondence storing unit (memory 122, fig. 29) operable to store therein information about correspondence of each button (because each button is corresponded to each image, see 0195), a processing program (see 0026, 0027, figs. 30a, 30b), and an image (fig. 30a); and

Art Unit: 2629

a button-processing analyzing unit (121) operable to

(a) execute a processing program corresponding to a button that has been pressed operation (because each button is corresponded to each image, see 0195).

(b) redefine the correspondence each button (because each of the buttons are always having the own functions, and the own program before they change to another image), a processing program (because the buttons still process program when the image does not change, such as in fig. 30a), and an image (see Family of fig. 30a, before it changed image), and

(c) display in accordance with the redefined correspondence, images on the one display panel in such a manner that an image corresponding to each button appears on the corresponding button (because before the button or image keys 120a change to different image, they also appear image on the button). Claim 8 is depend on claim 4, and is rejected on the reasons set forth in claim 4.


Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number is (571) 272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kimnhung Nguyen
Examiner

April 11, 2006